## TRT Meeting Minutes: February 26 – 27, 2004

IDFG Office, 600 S Walnut, Boise ID

Members: Carmichael, Cooney, Hassemer, Howell, McClure, Petrosky, Schaller (Feb. 27, via phone), Spruell, Utter

Non-Members: Morita, Holzer, Carmen Andonaegui, Vince Kozakiewicz (26<sup>th</sup>, midmorning 27<sup>th</sup>), Angela Somma (26<sup>th</sup>, mid-morning 27<sup>th</sup>), Lynn Hatcher (26<sup>th</sup>, midmorning 27<sup>th</sup>), Nora Berwick (26<sup>th</sup>), Herb Pollard (26<sup>th</sup>), Alan Byrne (mid-morning 27<sup>th</sup>, presenter)

## Viability Criteria –

- Document release plan/hope:
  - Conceptual summary of delisting criteria (2-3 pages, distributed by Cooney): release within a few weeks. Once updated, read and return with comments. Prepare to work on it before distribution.
  - o Technical document: within a few months

## - Diversity Criteria

- Spruell logic tree discussion incorporated quantifyingknown diversity, gauging the strength of available data (i.e. believable believable and biologically significant) andpotential diversity.
- Use of Ecoregions or other proxy for potential diversity where data is lacking.
  - Concern: details of methodology for ecoregion designation unclear.
  - <u>Task</u> determine if Ecoregions are an appropriate measure of diversity relevant to salmonid population diversity
    - Compare random sample of points or 6HUCs for temp., elev., etc. to ecoregion differences (i.e. does ecoregion capture the variation in habitat that we think is relevant for salmonid diversity?)
    - Compile a primer on ecoregions (What they are and how designated) and how they might be a proxy of descriptors to be expressed.
    - Compare proposed ecoregion diversity score to available diversity metrics (i.e. in situations where we have some measure of diversity, does it correspond to our proxy?)
      - o Genetic (Fst?)
      - o Phenotypic, such as range of arrival time at LGR.
- 3 metrics of diversity to keep in mind: 1- Ecoregion or other proxy.
  Know Diversity (genetic, etc).
  3- Hatchery Influence (this should be kept as a separate measure)
- o If observed, protect it; if unobserved use ecoregion metric
  - But what if one contradicts the other?
  - "Fairness issue." Should specific areas be pointed out just because they are observed so far? Is this a disincentive to measure the unknowns?

- O <u>Task</u> (Tom) Write up summary and points for MPG (Multiple Population Grouping) and diversity criteria, with at least three (3) options for analyses and why they might be appropriate
- Small group meeting -- Spruell Decision tree modified to include a "conceptual score" of 1-4, from high to low risk.
  - o 1- Uniform (clonal) population. 2- Some... 3- Most... 4- All potentially viable pheno/genotypes present.
  - o "3" would be a population viability criterion. Numerical score with subscript G, P, or E
    - for type of data score based on, Genetic, Phenotypic, Ecoregion (or other metric)

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- Spatial Structure Criteria (Note to Mike: I know this is out of order, but this is how they're related makes more sense to put it in topic-wise)\_.
- Carmichael analyses of spawner density to population size
  - The assumption that as population size decreases, spawners concentrate in core areas appears to be false (and sometimes trends in the other direction) in the basins analyzed. Could be due to site fidelity? Implications for core spawning areas?
- Spatial Structure
  - What is the importance of separation between spawning aggregates?
    - For catastrophic risk? For diversity?
  - Spawning/rearing/overwintering which should be used in quantifying spatial structure?

A second try at describing risk with respect to spatial structure:

| Risk     | ]           | Linear      | Branched           |
|----------|-------------|-------------|--------------------|
| 1 (high) | # Spawners  | Km Spawning | No Cores           |
|          | 500+ Chin   | 40 km       | >= 250             |
|          | 1,000 Steel | 80 km       |                    |
| 2        |             | >40km       | 2 branches         |
|          |             | >80km       | Cores >= 10km Chin |
|          |             |             | >= 20 km Steel     |
| 3        |             |             | 3 branches         |
| 4 (low)  |             |             | 4+                 |

- Task Plan on phone conf call to decide a HUC-based plan once Idaho reconciliation is released. Issues:
  - o How should branching be determined in a HUC model?
  - o How to make rules describing "close together" and "far apart"
- <u>Mtg</u> Cooney, Schaller, and Petrosky will meet in Portland to work on viability curves
- Interaction with Subbasin Planning/Gearing up for Phase II in General

- How should the TRT answer request from Upper Columbia subbasin planners to give a presentation to be critiqued by TRT?
  - Instead the TRT will review the paper and submit generalizable comments to the domain team, which can then distribute the comments to all subbasin planners.
    - Distribute next week, call to arrange formatting of comments to be compiled at next TRT Meeting
  - This allows valuable information to be distributed to all planners who might want it, without overloading the TRT with reviews to complete.
  - O This can be done for other domains as well, review the first most relevant plan from that domain.
  - <u>To Do</u> Review of criteria for domains. Compile comments on distributed paper. Asotin basin comments.
  - Mtg March 3 conference call planned.

## - Population Identification

- Presentation of Genetic data from IDFG report (Nielsen et al.) – presented by Alan Byrne. Followed by discussion